

**SAWS OVERSIGHT PROCESSES BINDER
RECORD OF CHANGE LOG**

SECTION NAME: Analysis & Reporting of Consortia Performance Data
RESPONSIBLE PARTY: Bill Obernesser - Consultant
BRIEF DESCRIPTION OF SECTION:

CHANGE LOG

DATE	CHANGE DESCRIPTION/LOCATION	INITIALS

HHSDC SAWS Oversight Operations Guide

Analysis and Reporting of Consortium Performance Data

The HHSDC Oversight Activities Plan (December, 2000) described “Performance Monitoring” as one of two major areas of SAWS Oversight Activity (the second area being Risk Management). This document describes SAWS Oversight Performance Monitoring in greater detail.

Scope

This document covers analysis and reporting of performance data for projects during the application development and testing process. It does not cover analysis and reporting of performance during maintenance and operations.

Approach

There is a wealth of information available from each development project. Generally, this information includes written plans, application specifications (e.g. requirements, design, etc.) software products, test results, status reports, etc. It is imperative that a relatively modestly funded oversight organization such as HHSDC devote considerable analysis and thought to the specific information it will review to monitor each project’s performance.

To help ensure that oversight resources are effectively utilized, HHSDC used a form of the “goal-question-metric” paradigm¹ to identify key areas for data gathering and analysis.

The results of the “goal-question-metric” analysis are part of the December, 2000 Oversight Activities Plan (Attachment 2). In summary, HHSDC analyzes consortium performance data to meet the following key management goals:

- Early warning of deviations from plan (in terms of both resources and schedule), consortium plans for remediation, and the capability to make credible independent estimates of time and cost to completion when deviations occur;
- A better quality product (i.e., fewer defects; higher rate of defect discovery in early stages; high user satisfaction);

¹ First suggested by Basili and Weiss (1984) and elaborated in DoD's Practical Software Measurement, A Foundation for Objective Project Management (1998) and elsewhere.

- Increased control of software change order impact and cost; and
- More effective mitigation of technical architecture risk.

The details of the SAWS Oversight “goal-question-metric” analysis are attached (Attachment A) for reference.

Analysis and Reporting Details

This following table displays the key sources of data for each oversight goal, summarizes the approach to analysis and lists the recipients of the analysis results.

Early Warning of Deviations from Plan

Input Data	Type of Analysis	Results Reported to:
CalWIN Project Plan: Microsoft Project File including tasks, resources, baseline and actual hours by task	Detailed comparison of current to baseline; analysis of changes from prior versions; analysis of planned vs. actual; comparison to independently assessed completion status of major deliverables	HHSDC Oversight Management; State Oversight Working Committee; Consortium
Key project deliverables	Deliverables are reviewed by independent parties: HHSDC and specialist consultants as appropriate for compliance with requirements, standards, completeness, feasibility, etc.	HHSDC Oversight Management; State Oversight Working Committee; Consortium
	Currently specialist consultants are retained to review deliverables related to (1) technical architecture; (2) coding; (3) testing; and (4) planning; (5) quality assurance; and (6) configuration management	HHSDC Oversight Management; State Oversight Working Committee; Consortium
Consortium deliverable review results, including detailed review comments and summary defect data in formats agreed to between HHSDC and the consortium	Sample detailed comments; evaluate defect reports for potential areas of weakness at the subsystem level and potential comparison to industry data.	HHSDC Oversight Management; State Oversight Working Committee; Consortium
Interim progress reporting on the coding task	Comparison of progress against plan	HHSDC Oversight Management; State Oversight Working Committee; Consortium
Function point counts and predictive modeling results from specialized consultants	Attempt to validate planned time to completion and planned level of effort at key milestones	HHSDC Oversight Management; State Oversight Working Committee; Consortium

Change requests	Monitor change requests for potential impact on time and cost	HHSDC Oversight Management; State Oversight Working Committee; Consortium
Project Staffing Data	Monitor turnover for potential negative impact on project performance, time and cost	HHSDC Oversight Management; State Oversight Working Committee; Consortium

A Better Quality Product

Key project deliverables	Deliverables are reviewed by independent parties: HHSDC and specialist consultants as appropriate for compliance with requirements, standards, completeness, feasibility, etc.	HHSDC Oversight Management; State Oversight Working Committee; Consortium
	Currently specialist consultants are retained to review deliverables related to (1) technical architecture; (2) coding; (3) testing; and (4) planning; (5) quality assurance; and (6) configuration management	HHSDC Oversight Management; State Oversight Working Committee; Consortium
Consortium deliverable review results, including detailed review comments and summary defect data in formats agreed to between HHSDC and the consortium	Sample detailed comments; evaluate defect reports for potential areas of weakness at the subsystem level and potential comparison to industry data.	HHSDC Oversight Management; State Oversight Working Committee; Consortium
<i>Note: HHSDC is currently developing processes for monitoring other key software quality attributes, including maintainability, and user satisfaction</i>		HHSDC Oversight Management; State Oversight Working Committee; Consortium

Control Change Order Impact and Cost

Change requests

Monitor change requests for potential impact on time and cost

HHSDC Oversight Management;
State Oversight Working Committee;
Consortium

Note: HHSDC is in the final stages of acquiring consultant services to assist in the development of a more objective approach to assessing the impact of change orders.

Reduce Technical Architecture Risk

Technical work products, including specifications, plans, modeling inputs and results, code, test results, etc.

Deliverables are reviewed by independent parties: HHSDC and specialist consultants as appropriate for compliance with requirements, standards, completeness, feasibility, etc. A specialist consultant has been retained by HHSDC to review and assess all technical work products and formally report the results, along with a technical risk assessment.

HHSDC Oversight Management;
State Oversight Working Committee;
Consortium

Contractually required updates of all software and hardware products planned for use by the Consortium (e.g. CalWIN Exhibit N)

These are reviewed by HHSDC and the consultant referred to above.

HHSDC Oversight Management;
State Oversight Working Committee;
Consortium

Ongoing "reference check" followup. The Consortium must periodically followup with references used to support the viability of the proposed configuration. Any issues that arise (performance, product support, etc.) are identified and reported in writing.

These are reviewed by HHSDC and the consultant referred to above.

HHSDC Oversight Management;
State Oversight Working Committee;
Consortium